

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058433

Luminaire Tested: S122RDR-H485D950-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058433  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H485D950-X4F0-XX-UDD-SVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

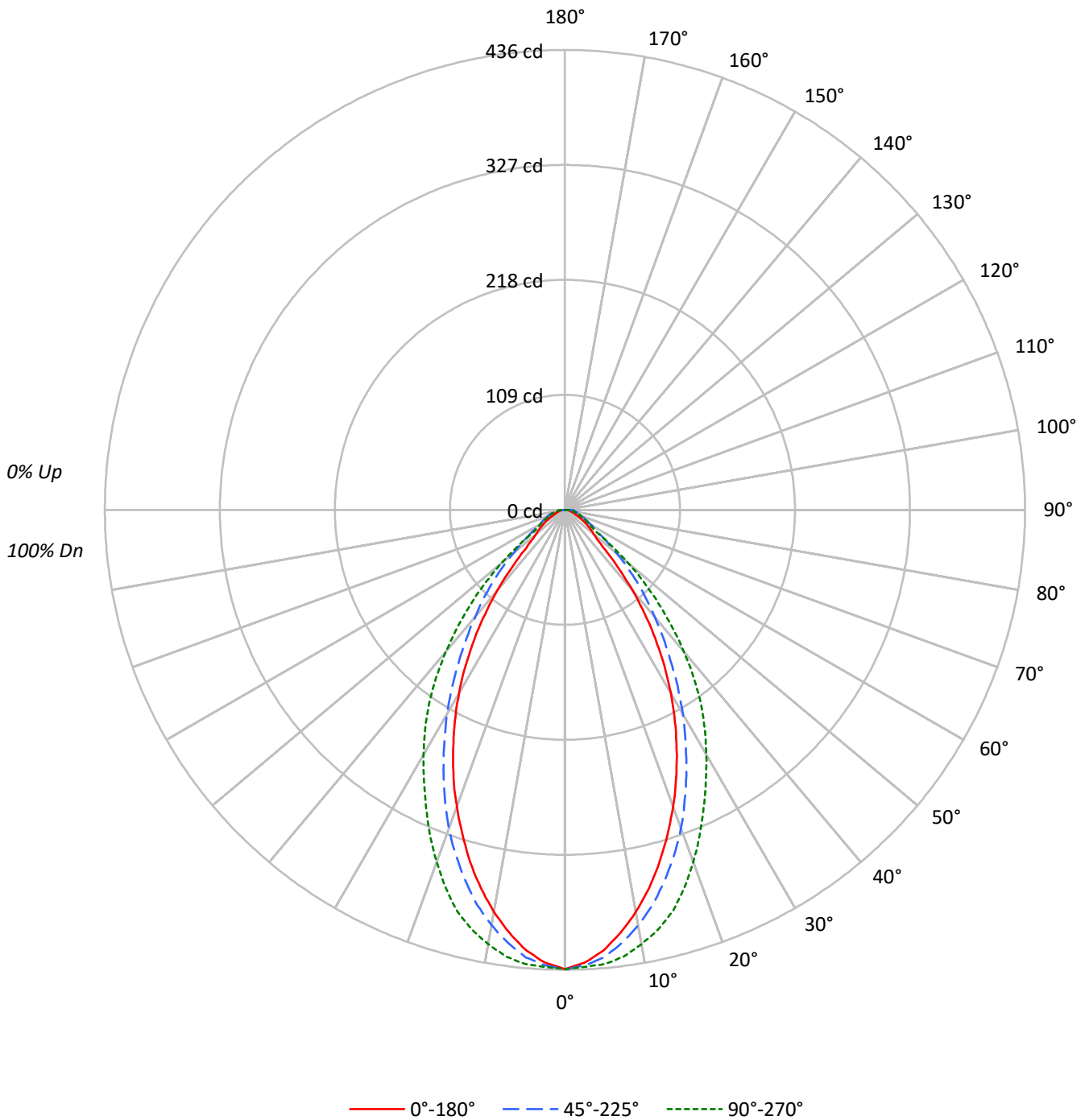
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 528.3 lumens  
Efficiency: N/A  
Efficacy: 30.4 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |     |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|---|
| RF  | 20  |     |     |     |     | 20  |     |     |     |     | 20  |     |     |     |     | 20  |     |     |    |    | 20  |   |
| RC  | 80  |     |     |     |     | 70  |     |     |     |     | 50  |     |     |     |     | 30  |     |     |    |    | 10  | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 | 0   |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |     |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    | 100 |   |
| 1   | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 102 | 99  | 97  | 98  | 96  | 94  | 94  | 93  | 91  | 89  |    |    | 89  |   |
| 2   | 104 | 98  | 93  | 88  | 102 | 96  | 91  | 87  | 93  | 89  | 85  | 90  | 86  | 84  | 87  | 84  | 82  | 80  |    |    | 80  |   |
| 3   | 97  | 89  | 83  | 78  | 95  | 88  | 82  | 77  | 85  | 80  | 76  | 83  | 78  | 75  | 80  | 77  | 74  | 72  |    |    | 72  |   |
| 4   | 91  | 82  | 75  | 70  | 89  | 81  | 74  | 69  | 78  | 73  | 68  | 76  | 71  | 68  | 74  | 70  | 67  | 65  |    |    | 65  |   |
| 5   | 86  | 75  | 68  | 63  | 84  | 74  | 68  | 63  | 72  | 67  | 62  | 71  | 65  | 61  | 69  | 64  | 61  | 59  |    |    | 59  |   |
| 6   | 80  | 70  | 62  | 57  | 79  | 69  | 62  | 57  | 67  | 61  | 57  | 66  | 60  | 56  | 64  | 59  | 56  | 54  |    |    | 54  |   |
| 7   | 76  | 65  | 57  | 52  | 74  | 64  | 57  | 52  | 62  | 56  | 52  | 61  | 56  | 52  | 60  | 55  | 51  | 50  |    |    | 50  |   |
| 8   | 71  | 60  | 53  | 48  | 70  | 59  | 53  | 48  | 58  | 52  | 48  | 57  | 52  | 48  | 56  | 51  | 47  | 46  |    |    | 46  |   |
| 9   | 67  | 56  | 49  | 45  | 66  | 56  | 49  | 45  | 55  | 49  | 44  | 54  | 48  | 44  | 53  | 48  | 44  | 42  |    |    | 42  |   |
| 10  | 64  | 53  | 46  | 41  | 63  | 52  | 46  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 50  | 45  | 41  | 39  |    |    | 39  |   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8036 | 8036 | 8036 |
| 5°  | 7767 | 7887 | 8007 |
| 10° | 7251 | 7493 | 7832 |
| 15° | 6614 | 6959 | 7529 |
| 20° | 5883 | 6315 | 6977 |
| 25° | 5098 | 5546 | 6338 |
| 30° | 4274 | 4758 | 5708 |
| 35° | 3368 | 3935 | 5057 |
| 40° | 2402 | 3180 | 4225 |
| 45° | 1420 | 2516 | 3275 |
| 50° | 1022 | 1820 | 2231 |
| 55° | 853  | 1313 | 1123 |
| 60° | 694  | 1052 | 956  |
| 65° | 563  | 934  | 878  |
| 70° | 491  | 906  | 836  |
| 75° | 463  | 920  | 827  |
| 80° | 478  | 1105 | 893  |
| 85° | 677  | 1778 | 1101 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3275 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 39.9   | 7.6       |
| 10°-20°   | 102.6  | 19.4      |
| 20°-30°   | 126.6  | 24.0      |
| 30°-40°   | 112.6  | 21.3      |
| 40°-50°   | 71.9   | 13.6      |
| 50°-60°   | 34.5   | 6.5       |
| 60°-70°   | 20.3   | 3.8       |
| 70°-80°   | 12.9   | 2.4       |
| 80°-90°   | 6.9    | 1.3       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 269.2  | 51.0      |
| 0°-40°    | 381.8  | 72.3      |
| 0°-60°    | 488.2  | 92.4      |
| 0°-90°    | 528.3  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 528.3  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 436 | 436   | 436 | 436   | 436 |      |
| 5°  | 419 | 427   | 426 | 428   | 432 | 39   |
| 15° | 346 | 355   | 364 | 381   | 394 | 97   |
| 25° | 250 | 260   | 272 | 292   | 311 | 115  |
| 35° | 150 | 161   | 175 | 201   | 224 | 93   |
| 45° | 54  | 70    | 96  | 112   | 126 | 46   |
| 55° | 26  | 34    | 41  | 40    | 35  | 24   |
| 65° | 13  | 23    | 21  | 19    | 20  | 13   |
| 75° | 6   | 14    | 13  | 12    | 12  | 7    |
| 85° | 3   | 8     | 8   | 7     | 5   | 3    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 435.5 | 435.5 | 435.5 | 435.5 | 435.5 |
| 2.5°  | 429.7 | 436.8 | 432.3 | 432.3 | 433.6 |
| 5°    | 419.3 | 427.1 | 425.8 | 428.4 | 432.3 |
| 7.5°  | 404.4 | 412.9 | 414.1 | 421.3 | 427.1 |
| 10°   | 387.0 | 396.0 | 399.9 | 410.3 | 418.0 |
| 12.5° | 367.6 | 376.6 | 383.7 | 396.7 | 407.7 |
| 15°   | 346.2 | 354.6 | 364.3 | 381.1 | 394.1 |
| 17.5° | 322.9 | 333.9 | 343.6 | 361.1 | 376.0 |
| 20°   | 299.6 | 310.0 | 321.6 | 338.4 | 355.3 |
| 22.5° | 275.7 | 285.4 | 297.0 | 314.5 | 333.9 |
| 25°   | 250.4 | 260.1 | 272.4 | 291.8 | 311.3 |
| 27.5° | 225.8 | 235.5 | 247.2 | 268.5 | 289.3 |
| 30°   | 200.6 | 210.3 | 223.3 | 245.3 | 267.9 |
| 32.5° | 175.4 | 185.7 | 198.7 | 222.6 | 246.5 |
| 35°   | 149.5 | 161.1 | 174.7 | 201.3 | 224.5 |
| 37.5° | 124.2 | 135.9 | 152.7 | 178.6 | 200.6 |
| 40°   | 99.7  | 113.2 | 132.0 | 155.3 | 175.4 |
| 42.5° | 75.7  | 90.6  | 113.9 | 132.7 | 150.1 |
| 45°   | 54.4  | 70.5  | 96.4  | 111.9 | 125.5 |
| 47.5° | 41.4  | 53.1  | 79.6  | 91.9  | 101.6 |
| 50°   | 35.6  | 42.7  | 63.4  | 72.5  | 77.7  |
| 52.5° | 31.1  | 37.5  | 50.5  | 55.0  | 55.0  |
| 55°   | 26.5  | 34.3  | 40.8  | 39.5  | 34.9  |
| 57.5° | 22.6  | 31.1  | 33.6  | 28.5  | 29.8  |
| 60°   | 18.8  | 28.5  | 28.5  | 25.2  | 25.9  |
| 62.5° | 15.5  | 26.5  | 24.6  | 22.0  | 22.6  |
| 65°   | 12.9  | 23.3  | 21.4  | 19.4  | 20.1  |
| 67.5° | 10.4  | 20.7  | 18.8  | 17.5  | 17.5  |
| 70°   | 9.1   | 18.8  | 16.8  | 15.5  | 15.5  |
| 72.5° | 7.8   | 16.2  | 14.9  | 13.6  | 13.6  |
| 75°   | 6.5   | 14.2  | 12.9  | 12.3  | 11.6  |
| 77.5° | 5.8   | 12.3  | 11.6  | 10.4  | 9.7   |
| 80°   | 4.5   | 10.4  | 10.4  | 9.7   | 8.4   |
| 82.5° | 3.9   | 9.1   | 9.1   | 8.4   | 7.1   |
| 85°   | 3.2   | 7.8   | 8.4   | 7.1   | 5.2   |
| 87.5° | 2.6   | 7.1   | 7.1   | 5.8   | 3.9   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |



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**CIE UGR TABLE:**

| Reflectances:   |      |                  |       |       |       |       |                |       |       |       |       |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling         |      | 0.7              | 0.7   | 0.5   | 0.5   | 0.3   | 0.7            | 0.7   | 0.5   | 0.5   | 0.3   |
| Wall            |      | 0.5              | 0.3   | 0.5   | 0.3   | 0.3   | 0.5            | 0.3   | 0.5   | 0.3   | 0.3   |
| Reference plane |      | 0.2              | 0.2   | 0.2   | 0.2   | 0.2   | 0.2            | 0.2   | 0.2   | 0.2   | 0.2   |
| Room dimensions |      | Viewed crosswise |       |       |       |       | Viewed endwise |       |       |       |       |
| X=2H            | Y=2H | 8.92             | 10.19 | 9.28  | 10.51 | 10.82 | 8.71           | 9.98  | 9.07  | 10.30 | 10.61 |
|                 | 3H   | 10.15            | 11.29 | 10.53 | 11.62 | 11.98 | 10.30          | 11.43 | 10.68 | 11.76 | 12.13 |
|                 | 4H   | 10.60            | 11.66 | 11.01 | 12.01 | 12.40 | 11.01          | 12.07 | 11.42 | 12.42 | 12.81 |
|                 | 6H   | 10.98            | 11.96 | 11.40 | 12.33 | 12.72 | 11.66          | 12.64 | 12.08 | 13.01 | 13.40 |
|                 | 8H   | 11.14            | 12.06 | 11.57 | 12.45 | 12.86 | 11.99          | 12.91 | 12.42 | 13.30 | 13.71 |
|                 | 12H  | 11.29            | 12.18 | 11.73 | 12.56 | 12.99 | 12.29          | 13.17 | 12.72 | 13.56 | 13.99 |
| 4H              | 2H   | 9.47             | 10.53 | 9.87  | 10.88 | 11.26 | 9.30           | 10.36 | 9.71  | 10.71 | 11.10 |
|                 | 3H   | 11.16            | 12.04 | 11.58 | 12.44 | 12.84 | 11.14          | 12.01 | 11.55 | 12.41 | 12.81 |
|                 | 4H   | 11.96            | 12.74 | 12.39 | 13.16 | 13.60 | 12.01          | 12.79 | 12.44 | 13.21 | 13.65 |
|                 | 6H   | 12.60            | 13.28 | 13.06 | 13.72 | 14.19 | 12.85          | 13.53 | 13.32 | 13.98 | 14.44 |
|                 | 8H   | 12.85            | 13.48 | 13.32 | 13.93 | 14.40 | 13.27          | 13.91 | 13.74 | 14.36 | 14.83 |
|                 | 12H  | 13.10            | 13.66 | 13.58 | 14.14 | 14.61 | 13.68          | 14.24 | 14.16 | 14.72 | 15.19 |
| 8H              | 4H   | 12.37            | 13.01 | 12.84 | 13.45 | 13.92 | 12.42          | 13.06 | 12.89 | 13.50 | 13.98 |
|                 | 6H   | 13.35            | 13.87 | 13.85 | 14.37 | 14.85 | 13.51          | 14.03 | 14.01 | 14.53 | 15.01 |
|                 | 8H   | 13.85            | 14.31 | 14.37 | 14.83 | 15.32 | 14.10          | 14.57 | 14.62 | 15.08 | 15.58 |
|                 | 12H  | 14.35            | 14.76 | 14.86 | 15.26 | 15.83 | 14.70          | 15.11 | 15.22 | 15.61 | 16.18 |
| 12H             | 4H   | 12.44            | 13.00 | 12.93 | 13.48 | 13.96 | 12.50          | 13.06 | 12.99 | 13.54 | 14.02 |
|                 | 6H   | 13.52            | 13.99 | 14.04 | 14.50 | 15.00 | 13.68          | 14.14 | 14.20 | 14.66 | 15.15 |
|                 | 8H   | 14.16            | 14.57 | 14.68 | 15.07 | 15.64 | 14.39          | 14.80 | 14.90 | 15.29 | 15.87 |